REMARKS

This is in response to the Office Action that was mailed on August 27, 2004. Various formal amendments are made to claim 17-23. Claims 24-25 are amended based upon such disclosure as that appearing in the paragraph bridging pages 21-22 of the specification. No new matter is introduced by this Amendment. Claims 17-25 remain in the application.

Claims 17-25 were rejected under the second paragraph of 35 U.S.C. §112 as failing to define the invention properly. Office Action, pages 6-11. Most of the issues raised by the Examiner have been addressed by amendment of the claims. Applicants respectfully request reconsideration of the following issues. In item r), the Examiner indicates that it is not known what is meant by alkyl-onium salt and similar terminology. Such terminology refers to quaternary ammonium type salts. In items t) – aa) on pages 9-10 of the Office Action, the Examiner refers to various antecedent basis issues. Those issues have been resolved by the amendment of claim 17. In items ab) and ac), the Examiner alleges that N-2- and N-3-pyrrolinyl lack antecedent basis in claim 17. Antecedent basis is provided by the recitation of the generic term "pyrrolinyl" in claim 17. In item ad), the Examiner alleges that N-(1,4,5,6-tetrahydropyridyl) lacks antecedent basis in claim 17. Antecedent basis is now provided by the recitation of the generic term "tetrahydropyridyl" in claim 17. It is respectfully submitted that the claims in their current form satisfy the requirements of the statute.

Claims 23-25 were rejected under the first paragraph of 35 U.S.C. §112 and claim 24 was additionally rejected under the second paragraph of 35 U.S.C. §112. Office Action, pages 2-5. Claims 24 and 25 now read as follows:

> 24. A method of treatment of withdrawal treatment of withdrawal symptoms responsive to the activity of nAChR modulators, caused by termination of use of an addictive substance of a living animal body, including a human, comprising the step of administering to such a living animal body, including a human, in need thereof a therapeutically effective amount of the diazacycloalkane of claim 17.
>
> 25. The method according to claim 24, wherein said addictive substance is tobacco.

Claim 23 now reads as follows:

> 23. A pharmaceutical composition comprising a therapeutically-effective amount of a diazacycloalkane of claim 17, or a pharmaceutically-acceptable addition salt thereof, together with at least one pharmaceutically-acceptable carrier or diluent.

It is respectfully submitted that claims 23-25 in their present form describe inventions that are fully described and fully enabled by the specification herein.

Claims 17 and 19 were rejected under 35 U.S.C. §102(a) over Ishiwata. The Examiner cited Examples 22-24 of the reference. Claims 17, 19, and 23 were rejected under 35 U.S.C. §102(b) over Kaneko. The Examiner cited Example E-1 of the reference. Finally, claims 17, 19, and 23 were rejected under 35 U.S.C. §102(b) over Green, with the Examiner citing Example 4 of the reference. The claims in question require that an R^1 group be directly attached to a nitrogen atom of a homopiperazine nucleus. The R^1 group is a ring group, *viz.*, pyridyl, pyridazinyl, quinolinyl, isoquinolinyl,

phenyl, pyrrolinyl, piperidinyl, terahydropyridinyl, or morpholinyl. Neither Examples 22-24 of Ishiwata nor Example E-11 of Kaneko nor Example 4 of Green shows a ring group directly attached to a nitrogen atom of a homopiperazine nucleus.

Applicants wish to bring to the attention of the Examiner the fact that commonly owned U.S. patent application Serial No. 09/528,176 corresponds to WO 99/21834. The latter was cited in the Information Disclosure Statement filed herein on August 23, 2001.

If the Examiner has any questions concerning this application, she is requested to contact Richard Gallagher, Reg. No. 28,781, at (703) 205-8008.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 CFR 1.16 or under 37 CFR 1.17; particularly, extension of time fees.

Respectfully submitted,

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